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EXAMINER	
BAIG, ADNAN	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,726	HUNT ET AL.	
	Examiner	Art Unit	
	ADNAN BAIG	2461	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 15 December 2009.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 39-69 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 39-69 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 39-69 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 39-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (USP 5,878,224) in view of Tontiruttanonon et al. (USP 7,107,061), and further in view of Margulis et al. USP (6,243,449).

Regarding Claim 39, Smith discloses an adaptive overload control method for controlling the amount of traffic offered by a plurality of network access points to a network access controller for processing, the plurality of network access points being arranged under the control of the network access controller to provide said traffic with access to a communications network, the method comprising:

determining if an overload condition exists at the network access controller, (**see Fig. 4, 410 & Col. 5 lines 4-10**)

and if so, the network access controller externally controlling the amount of traffic which it processes and regulating the rate of traffic offered by said plurality of network access points (**see Fig. 6, Step 606 i.e., reduce rate (regulating)**), by:

generating at least one global constraint to restrict the rate (**see Fig. 6, Step 606**) at which a network access point admits said traffic to the communications network, **(see Col. 5 lines 29-36)**

communicating said at least one global traffic constraint to one or more of said plurality of network access points, (**see Fig. 2, Col. 4 lines 15-24 & Col. 5 lines 29-36)**

and at each network access point which receives said at least one global traffic constraint, processing (**see Col. 5 lines 35-36, i.e., update (processing)**) the received global traffic constraint to determine a plurality of local constraint conditions by:

determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint, (**see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Smith teaches service demand volatility threatens the integrity of services that network servers provide, where servers may experience overloads and must therefore complement engineering practices, (**see Col. 1 lines 35-42**)

Smith does not disclose determining an initial local gap interval (Δt0) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point. Imposing said initial local gap interval (Δt0) at each of said plurality of network access points without waiting for traffic to be received at the respective network access point, wherein each initial local gap interval (Δt0) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt0), however the limitation would be rendered obvious in view of the teachings of Tontiruttanonon et al. (USP 7,107,061).

Tontiruttanonon discloses determining an initial local gap interval (Δt0) which differs from said determined local gap interval (Δt) of the respective network access point, (**Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic which is incremented with a shred rate (*see step 108*) in iterations to reach a final Gap size, (see Col. 5 lines 52-58**).

imposing said initial local gap interval ($\Delta t0$) without waiting for traffic to be received, **(see Fig. 5, step 102 imposes the initial gap interval before local implementing the increment Gap Interval 108. Referring to Fig. 7, Tontiruttanonon illustrates iterations of the embodiment of Fig. 5 for the local Gap interval 108 with four control periods 136, 138, 140, and 142 where 132 refers to the amount of time which traffic is blocked and 134 refers to the time where traffic is not blocked. At each control period Gap size 132 is increased by a shred rate percentage (*i.e., reject traffic*). Tontiruttanon further teaches at time T0 (*not illustrated in Fig. 7*), the gap size 132 may be zero indicating allowance of traffic, or a higher percentage that blocks traffic for a specified amount of time at T0 (*i.e., without waiting for traffic to be received*), see Col. 6 lines 30-53).**

wherein each initial local gap interval ($\Delta t0$) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt), **(see Col. 6 lines 39-44**)

Tontiruttanonon teaches there is a need for adapting to various overload conditions where conventional methods of controlling overload fail to compensate for overload at varying overload onset times and previously described control measures are generally designed for a specific overload condition having specific traffic parameters and are

unable to react when an overload occurs that does not fit within the systems parameters, (**see Col. 2 lines 42-58**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for implementing an initial local gap interval ($\Delta t0$) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, imposing said initial local gap interval ($\Delta t0$) at each of said plurality of network access points without waiting for traffic to be received at the network access point, wherein each initial local gap interval ($\Delta t0$) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt), by including the teachings of Tontiruttanonon who discloses an initial Gap interval ($\Delta t0$) imposed which differs from a final local Gap interval (Δt) which is reached by increasing the initial Gap Interval at various control periods, where each initial gap interval is determined independently to be between zero and the respective local gap interval, within the teachings of Smith who discloses determining if an overload condition exists at a network access controller, externally controlling the amount of traffic it processes by regulating the rate of traffic offered by the plurality of said network access points by generating and communicating at least one global traffic constraint to one or more of said plurality of network access points and determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint, because the teaching lies in Tontiruttanonon to adapt to various overload conditions.

The combination of Smith in view of Tontiruttanonon do not expressly disclose wherein the initial gap interval varies in a random manner between said plurality of said network access points offering traffic to said network access controller. However the limitation is known in the art of communications by evidence of Margulis et al. USP (6,243,449)

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

Referring to (**Col. 6 lines 17-24**), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (***i.e., avoid synchronized access attempts at the end of gapping period***)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to implement each respective network access point offering traffic to the network access controller to each have their initial gap interval vary in a random manner as taught by Margulis, within the teachings of Smith in view of Tontiruttanonon, because

the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Regarding Claim 40, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis discloses a method as claimed in claim 39, wherein the network access controller analyses the rate at which traffic is offered to the network access controller to determine said at least one global traffic constraint. (**Smith, see Fig. 6 & Col. 5 lines 29-36)**

Regarding Claim 41, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis discloses a method as claimed in claim 39, wherein the network access controller determines if an overload condition exists at the network access controller from the aggregate rate at which traffic is offered by all of said plurality of network access points to said network access controller, and wherein said at least one global constraint is derived from said aggregate offered traffic rate, (**Smith, see Col. 4 lines 15-24)**

Regarding Claim 42, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the network access controller analyzes the rate at which traffic is rejected by the network access controller

to determine said at *least* one global traffic constraint. (**Tontiruttanonon, see Col. 5 lines 18-25**)

Regarding Claim 43, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the network access controller determines if an overload condition exists at the network access controller from a reject rate comprising a rate at which the traffic offered by all of said plurality of network access points to said network access controller is rejected, and wherein said at least one global constraint is derived from the reject rate, (**Smith, see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Regarding Claim 44, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller, (**Smith, see Col. 7 lines 55-60**)

Regarding Claim 45, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the aggregate distribution of gap intervals (Δt) imposed by all of said network access points under the control of the network access controller is randomized at the onset of the local gap

interval (Δt) constraint imposed by each said network access point, (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**).

Regarding Claim 46, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the aggregate distribution of gap intervals (Δt) imposed by all of said network access points under the control of the network access controller is randomized at the onset of the local gap interval (Δt) constraint imposed by each said network access point, and wherein said randomization is imposed individually by each network access point generating an initial gap interval ($\Delta t0$) whose duration is determined by a random process, (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**), (**See Tontiruttanonon Col. 5 lines 52-58**).

Regarding Claim 47, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the aggregate distribution of gap intervals (Δt) imposed by all of said network access points under the control of the network access controller is randomized at the onset of the local gap interval (Δt) constraint imposed by each said network access point, (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**), and wherein said randomization is imposed individually by each network access point implementing said local gap interval (Δt) constraint immediately following processing (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**) of the global constraint information received, (**Smith, see Col. 12 line 64

– Col. 13 line 1-4), and wherein the time for the global constraint information processing to be completed following the network access controller generating said global constraint information varies for each of said plurality of network access points. (**Tontiruttanonon, see Fig. 7 & Col. 6 lines 30-53)**

Regarding Claim 48, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein in said step of communicating said at least one global traffic constraint to one or more of said plurality of network access points, at least one global traffic constraint is multicast to one or more of said plurality of network access points, **(Smith, see Col. 5 lines 29-36)**

Regarding Claim 49, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the initial gap interval ($\Delta t0$) (**See Tontiruttanonon Col. 5 lines 52-58**) is determined at each network access point using a random or pseudo-random technique. **(Smith, see Col. 12 line 64 – Col. 13 line 1-4**)

Regarding Claim 50, the combination of Smith in view of Tontiruttanonon and further in view of Margulis, disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-

hook messages are rejected by the access controller (**Smith, see Col. 7 lines 55-60**), wherein said communications network is a VoIP network, and said traffic comprises call-related traffic, (**Tontiruttanonon, see Fig. 3 & Col. 4 lines 1-7**)

Regarding Claim 51, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller and wherein said network access controller is a Media Gateway Controller and each of said plurality of network access points comprises a Media Gateway, (**Tontiruttanonon, see Fig. 3 & Col. 4 lines 1-46**)

Regarding Claim 52, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in any claim 39, wherein a global traffic rate constraint is determined by said network access controller for an address, (**Tontiruttanonon, see Fig. 3 Items 68,69 & Col. 4 lines 40-47 i.e., mobile device contain addresses**)

Regarding Claim 53, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the number of lines along which a network access point receives traffic for transmission across the

communications network and a scalable gap interval determined by the network access controller based on the aggregate traffic offered to the network access controller by all contributing network access points are used to determine said local gap interval (Δt), (**Smith**, **see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Regarding Claim 54, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein a dial-plan is implemented by a network access point to make it unnecessary to send an off-hook condition message to the network access controller when a local gap interval (Δt), constraint is being imposed. (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 55, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein each network access point determines the initial gap interval ($\Delta t0$), using a probabilistic method, (**Tontiruttanonon, see Col. 5 lines 52-58**)

Regarding Claim 56, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 39, wherein the initial gap interval ($\Delta t0$), if not zero, is determined by each network access point such that all of the network access points' initial gap intervals ($\Delta t0$), are uniformly distributed in the range

from zero to the local gap interval (Δt), determined by each network access point. (**Tontiruttanonon, see Col. 6 lines 39-44**)

Regarding Claim 57, Smith discloses a method of controlling the number of calls received by a media gateway controller for admittance to a communications network, the media gateway controller being arranged to be connected to a plurality of media gateways, the method comprising:

determining at least one scalable call rate control parameter at the media gateway controller; (**see Fig. 6, Col. 5 lines 4-15 & Col. 4 lines 15-24**)

the media gateway controller multicasting the scalable rate control parameters to each media gateway within the domain of control of the media gateway controller; **(see Fig. 2, Col. 4 lines 15-24 & Col. 5 lines 29-36)**

scaling the call rate control parameter at each media gateway to determine a scaled call rate control parameter at the media gateway (**see Col. 5 lines 35-36**), wherein the scaled call rate control parameter comprises a call gap interval (Δt), to be imposed by the media gateway on calls destined for the media gateway controller, (**see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Smith teaches service demand volatility threatens the integrity of services that network servers provide, where servers may experience overloads and must therefore complement engineering practices, (**see Col. 1 lines 35-42**)

Smith does not disclose the media gateway imposing a predetermined initial local call gap interval ($\Delta t0$), having a time duration between zero and the time duration of the local call gap interval (Δt), the media gateway imposing said initial local call gap interval ($\Delta t0$), at each of said plurality of network access points without waiting for a call to be received at the respective network access point, however the limitation is known in the art of communications by evidence of Tontiruttanonon et al. (USP 7,107,061).

Tontiruttanonon discloses determining an initial local gap interval ($\Delta t0$) which differs from said determined local gap interval (Δt) of the respective network access point, (**Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic which is incremented with a shred rate (*see step 108*) in iterations to reach a final Gap size**, (**see Col. 5 lines 52-58**). Having a time duration between zero and the time duration of the local gap interval (Δt) (**see Col. 6 lines 39-44**)

imposing said initial local gap interval (Δt0) without waiting for a call to be received (**see Fig. 5, step 102 imposes the initial gap interval before local increment Gap Interval 108. Referring to Fig. 7, Tontiruttanonon illustrates iterations of the embodiment of Fig. 5 for the local Gap interval 108 with four control periods 136, 138, 140, and 142 where 132 refers to the amount of time which traffic is blocked and 134 refers to the time where traffic is not blocked. At each control period Gap size 132 is increased by a shred rate percentage (i.e., reject traffic). Tontiruttanon further teaches at time T0 (*not illustrated in Fig. 7*), the gap size 132 may be zero indicating allowance of traffic, or a higher percentage that blocks traffic for a specified amount of time at T0 (*i.e., without waiting for a call to be received*), see Col. 6 lines 30-53)**.

Tontiruttanonon teaches there is a need for adapting to various overload conditions where conventional methods of controlling overload fail to compensate for overload at varying overload onset times and previously described control measures are generally designed for a specific overload condition having specific traffic parameters and are unable to react when an overload occurs that does not fit within the systems parameters, (**see Col. 2 lines 42-58**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the media gateway imposing a predetermined initial local gap interval (Δt0)

having a time duration between zero and the time duration of the local gap interval (Δt), the media gateway imposing said initial local gap interval ($\Delta t0$) at each of said plurality of network access points without waiting for a call to be received at the respective network access point, by including the teachings of Tontiruttanonon who discloses an initial Gap interval ($\Delta t0$) imposed which differs from a final local Gap interval (Δt) which is reached by increasing the initial Gap Interval at various control periods, where each initial gap interval is determined independently to be between zero and the respective local gap interval, within the teachings of Smith who discloses determining if an overload condition exists at a network access controller, externally controlling the amount of traffic it processes by regulating the rate of traffic offered by the plurality of said network access points by generating and communicating at least one global traffic constraint to one or more of said plurality of network access points and determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint because the teaching lies in Tontiruttanonon to adapt to various overload conditions.

The combination of Smith in view of Tontiruttanonon do not expressly disclose wherein the initial gap interval varies in a random manner between said plurality of said network access points offering traffic to said network access controller. However the limitation is known in the art of communications by evidence of Margulis et al. USP (6,243,449)

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

Referring to (**Col. 6 lines 17-24**), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (***i.e., avoid synchronized access attempts at the end of gapping period***)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to implement each respective network access point offering traffic to the network access controller to each have their initial gap interval vary in a random manner as taught by Margulis, within the teachings of Smith in view of Tontiruttanonon, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Regarding Claim 58, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein the initial local gap interval ($\Delta t0$) is initially active for a finite sub-set of said plurality of media gateways. (**Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic**, (**see Col. 5 lines 52-58**). (**Smith, see Fig. 2 206a, 206b**)

Regarding Claim 59, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose the a method as claimed in claim 57, wherein the initial gap interval ($\Delta t0$) (**see Col. 5 lines 52-58**) is determined using a random or pseudo-random technique. (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**).

Regarding Claim 60, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein at least one of said scalable call rate control parameters is assigned to a predetermined called address, (**Tontiruttanonon, see Fig. 3 Items 68,69 & Col. 4 lines 40-47 i.e., mobile device contain predetermined addresses**)

Regarding Claim 61, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein a dial-plan is imposed by the media gateway controller on the media gateway to determine the control treatment applied to at least part of a called address, (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 62, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein the media gateway

analyzes at least a portion of the called address prior to sending any call related indication to the media gateway controller. (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address**)

Regarding Claim 63 the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein the media gateway does not send an off-hook signal to the media gateway controller until the media gateway has analyzed at least one digit of the called address, (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address**)

Regarding Claim 64, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein the media gateway controller sends a dial-plan to the media gateway in advance (**Tontiruttanonon, see Fig. 5, step 102**) of the media gateway receiving a call from a user, (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 65, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein the media gateway

controller indicates to the media gateway which dial-tone the media gateway should apply to the next call for a specific termination. (**Smith, see Fig. 1 & Col. 4 lines 25-40**) (**Tontiruttanonon, see Fig. 7**)

Regarding Claim 66, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose a method as claimed in claim 57, wherein the call gap interval (Δt) is imposed by the media gateway after the media gateway has analyzed the specific called address, (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address**)

Regarding Claim 67, Smith discloses an adaptive overload control system comprising:
a communications network, (**see Fig. 2 & Col. 3 line 49-60**)

a plurality of network access points (**see Fig. 2, 206a, 206b**) being arranged under the control of a network access controller (**see Fig. 4**) to provide traffic with access to said communications network, (**see Col. 4 line 7-24**)

wherein the network access controller controls the amount of traffic offered by the plurality of network access points to the network access controller for processing, (**see Fig. 6 step 606 & Col. 4 lines 15-24**)

the network access controller determines if an overload condition exists at the network access controller, (**see Fig. 4, 410 & Col. 5 lines 4-10**)

and, if so: the network access controller externally controls the amount of traffic which it processes by:

regulating the rate of traffic offered by said plurality of network access points by generating at least one global constraint to restrict the rate at which a network access point admits said traffic to the communications network, (**see Col. 5 lines 29-36)**

communicating said at least one global traffic constraint to one or more of said plurality of network access points, (**see Col. 5 lines 29-36)**

wherein each respective one of said plurality of network access points is arranged to receive said at least one global traffic constraint and process (**see Col. 5 lines 35-36,**

i.e., update (processing)) the received global traffic constraint to determine a plurality determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint, (**see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Smith teaches service demand volatility threatens the integrity of services that network servers provide, where servers may experience overloads and must therefore complement engineering practices, (**see Col. 1 lines 35-42**)

Smith does not disclose determining an initial local gap interval ($\Delta t0$) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, imposing said initial local gap interval ($\Delta t0$) without waiting for traffic to be received at the respective network access point, wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points in said adaptive overload control system to be between zero and the respective local gap interval (Δt), however the limitation is known in the art of communications by evidence of Tontiruttanonon et al. (USP 7,107,061).

Tontiruttanonon discloses determining an initial local gap interval ($\Delta t0$) which differs from said determined local gap interval (Δt) of the respective network access point,

(**Referring to Fig. 5, Tontiruttanonon illustrates an initial gap interval in step 102 for initially blocking traffic which is incremented with a shred rate (*see step 108*) in iterations to reach a final Gap size**, (**see Col. 5 lines 52-58**).

imposing said initial local gap interval (Δt0) without waiting for traffic to be received, (**see Fig. 5, step 102 imposes the initial gap interval before local implementing the increment Gap Interval 108. Referring to Fig. 7, Tontiruttanonon illustrates iterations of the embodiment of Fig. 5 for the local Gap interval 108 with four control periods 136, 138, 140, and 142 where 132 refers to the amount of time which traffic is blocked and 134 refers to the time where traffic is not blocked. At each control period Gap size 132 is increased by a shred rate percentage (*i.e., reject traffic*). Tontiruttanon further teaches at time T0 (*not illustrated in Fig. 7*), the gap size 132 may be zero indicating allowance of traffic, or a higher percentage that blocks traffic for a specified amount of time at T0 (*i.e., without waiting for traffic to be received*), see Col. 6 lines 30-53**).

wherein each initial local gap interval (Δt0) is determined independently to be between zero and the respective local gap interval (Δt) (**see Col. 6 lines 39-44**)

Tontiruttanonon teaches there is a need for adapting to various overload conditions where conventional methods of controlling overload fail to compensate for overload at varying overload onset times and previously described control measures are generally designed for a specific overload condition having specific traffic parameters and are unable to react when an overload occurs that does not fit within the systems parameters, (**see Col. 2 lines 42-58**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for determining an initial local gap interval ($\Delta t0$) for said respective network access point which differs from said determined local gap interval (Δt) of the respective network access point, imposing said initial local gap interval ($\Delta t0$) at each of said plurality of network access points without waiting for traffic to be received at the network access point, wherein each initial local gap interval ($\Delta t0$) is determined independently by each of said plurality of network access points to be between zero and the respective local gap interval (Δt), by including the teachings of Tontiruttanonon who discloses an initial Gap interval ($\Delta t0$) imposed which differs from a final Gap interval (Δt) which is reached by increasing the initial Gap Interval at various control periods, where each initial gap interval is determined independently to be between zero and the respective local gap interval (Δt), within the teachings of Smith who discloses determining if an overload condition exists at a network access controller, externally controlling the amount of traffic it processes by regulating the rate of traffic offered by the plurality of said network access points by generating and communicating at least one global traffic

constraint to one or more of said plurality of network access points and determining a local gap interval (Δt) to be imposed on said traffic by said respective network access point, said local gap interval (Δt) being dependent on said global traffic constraint because the teaching lies in Tontiruttanonon to adapt to various overload conditions.

The combination of Smith in view of Tontiruttanonon do not expressly disclose wherein the initial gap interval varies in a random manner between said plurality of said network access points offering traffic to said network access controller. However the limitation is known in the art of communications by evidence of Margulis et al. USP (6,243,449)

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

Referring to (**Col. 6 lines 17-24**), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (***i.e., avoid synchronized access attempts at the end of gapping period***)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to implement each respective network access point offering traffic to the network access controller to each have their initial gap interval vary in a random manner as taught by Margulis, within the teachings of Smith in view of Tontiruttanonon, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Regarding Claim 68, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose disclose an adaptive overload control system as in claim 67, including a network access controller arranged to received traffic offered by a plurality of network access points arranged to provide said traffic with access to a communications network, the network access controller further comprising:

a traffic monitor (**Smith, see Fig. 404**), for monitoring the aggregate offered traffic rate comprising the traffic offered by all of said plurality of network access points to said network access controller, (**Smith, see Col. 5 lines 15-20**)

of local constraint conditions by:

a processor arranged to determine from said aggregate traffic rate if an overload condition exists at the network access controller, **(Smith, see Fig. 4 & Col. 4 line 40-67**)

a processor arranged to generating at least one constraint derived from said monitored aggregate offered traffic rate; (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**)

communication means to communicate said at least one constraint to each of said plurality of network access points, (**Smith, see Col. 5 lines 29-36)**

Regarding Claim 69, the combination of Smith in view of Tontiruttanonon, and further in view of Margulis disclose disclose an adaptive overload control system as in claim 67, including a network access point arranged to provide a network access controller with an offered traffic rate, and further comprising:

a receiver arranged to received constraint information from the network access controller, (**Smith, see Col. 5 lines 29-36 i.e., communicates to source (receives))**

a processor arranged to process said received constraint information to determine one or more local constraints to be imposed on the traffic which limit the traffic offered by said network access point to the network access controller, (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-

7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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